UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/553,737 | 10/20/2005 | Kurato Maeno | SAT 223NP | 7785 |

23995      7590      12/08/2008
RABIN & Berdo, PC
1101 14TH STREET, NW
SUITE 500
WASHINGTON, DC 20005

| EXAMINER |
|---|
| KING, JOHN B |

| ART UNIT | PAPER NUMBER |
|---|---|
| 4148 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 12/08/2008 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| | Application No. | Applicant(s) |
| **Office Action Summary** | 10/553,737 | MAENO, KURATO |
| | Examiner | Art Unit | |
| | JOHN B. KING | 4148 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *20 October 2005*.
2a)☐ This action is **FINAL**.      2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-20* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-20* is/are rejected.
7)☒ Claim(s) *1-20* is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *20 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☒ All    b)☐ Some * c)☐ None of:
         1.☒ Certified copies of the priority documents have been received.
         2.☐ Certified copies of the priority documents have been received in Application No. _____.
         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date *10-20-2005.9-13-2007*.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1.    The instant application having Application No. 10/553737 filed on October 20,

2005 is presented for examination by the examiner.

### *Oath/Declaration*

2.    The applicant's oath/declaration has been reviewed by the examiner and is found

to conform to the requirements prescribed in **37 C.F.R. 1.63.**

### *Drawings*

3.    The applicant's drawings submitted are acceptable for examination purposes.

### *Priority*

4.    As required by **M.P.E.P. 201.14(c)**, acknowledgement is made of applicant's

claim for priority based on applications filed on April 22, 2003 (JAPAN 2003-117061).

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

## *Information Disclosure Statement*

5.      The information disclosure statements (IDS) submitted on 10-20-2005 and 09-

13-2007 are in compliance with the provisions of 37 CFR 1.97.  Accordingly, the

information disclosure statement is being considered by the examiner.


## *Claim Objections*

6.      Claims 1-20 are objected to because of the following informalities:  The wording

of the claims does not conform to proper English standards.  Appropriate correction is

required.

## *Claim Rejections - 35 USC § 102*

7.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8.      **Claims 1, 7, 14, and 17** are rejected under 35 U.S.C. 102(b) as being anticipated

by Suzaki (US Pre-Grant Publication 2003/0021442 A1, published 1-30-2003).

As per claim 1, Suzaki discloses a watermark information embedding apparatus,

comprising: a document image generating section for generating a document image

**(Figure 1 and paragraphs 42-43, Suzaki teaches a document image formation**

**portion to generate a document image.)**; a watermark image generating section

which uses dot pattern to denote watermark information **(abstract and paragraph 44,**

**Suzaki teaches using dot patterns.)**, and generates watermark image in which an

outline of recording area of the watermark information is denoted by dot pattern

indicating special value **(abstract, figure 3, and paragraphs 56-61, Suzaki teaches**

**using the dot patterns to hold secret information.)**; and a synthesizing section for

overlapping the document image and the watermark image so as to generate a

containing watermark document image **(paragraph 45, Suzaki teaches obtaining a**

**wartermark document image by combining the watermark document and the**

**document.)**

As per claim 7, Suzaki discloses a watermark information detecting apparatus for

extracting watermark information **(paragraphs 47-50, Suzaki teaches a watermark**

**information detection device.)**, which being represented as a watermark image

having multiple dot pattern configured in one surface thereof **(paragraphs 44, 56-61,**

**Figure 3, and abstract, Suzaki teaches using dot patterns in a two-dimensional**

**surface to represent a watermark.)**, from a document comprising a watermark

information detector **(paragraph 18-19, Suzaki teaches detection of the watermark.)**,

the watermark information detector discriminating area of the watermark information

according to detected outline representing special value **(paragraph 18-19, Suzaki**

**teaches detection of the watermark by extracting the dot patterns that contain**

**special information.)**

As per claim 14, Suzaki discloses a method of embedding watermark

information, comprising: representing the watermark information with dot pattern by a

watermark information embedding apparatus **(paragraphs 44, 56-61, Figure 3, and**

**abstract, Suzaki teaches using dot patterns.)**; generating a watermark image by

using dot pattern representing special value to represent a outline of a watermark

information area **(abstract, figure 3, and paragraphs 56-61, Suzaki teaches using**

**the dot patterns to hold secret information and outline the watermark.)**; and

generating a containing watermark document image by overlapping the watermark

image and the prescript document image **(paragraph 45, Suzaki teaches obtaining a**

**watermark document image by combining the watermark document and the**

**document.)**

As per claim 17, Suzaki discloses a method of detecting watermark information

for utilizing a watermark information detecting apparatus to extract watermark

information **(paragraph 18-19, Suzaki teaches the use of a detecting apparatus to**

**detect and extract watermark information.)**, which being represented as a watermark

image having multiple dot pattern configured in one surface thereof, from a document

**(paragraphs 44, 56-61, Figure 3, and abstract, Suzaki teaches using dot patterns**

**in a two-dimensional surface.)**, the method comprising the steps of: detecting a

outline representing special value from the watermark image **(paragraphs 18-19 and**

**97-99, Suzaki teaches calculating the watermark area by using the dot patterns**

**that represent the special information.)**; and estimating the area of the watermark

information according to the outline **(paragraphs 97-99, Suzaki teaches calculating**

**the watermark area.)**

## *Claim Rejections - 35 USC § 103*

9.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

10.      **Claims 2-6, 8-13, 15-16 and 18-20** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Suzaki in view of Tewfik et al. (US Patent 6031914, published 2-29-

2000) hereinafter referred to as Tewfik.

As per claim 2, Suzaki discloses a watermark information embedding apparatus,

comprising: a document image generating section for generating a document image

**(Figure 1 and paragraphs 42-43, Suzaki teaches a document image formation**

**portion to generate a document image.)**; generating diffusing watermark information

and generating a watermark image in which the diffusing watermark information is

denoted by dot pattern **(paragraphs 44, 56-61, Figure 3, and abstract, Suzaki**

**teaches using dot patterns.)**; and a synthesizing section for overlapping the document

image and the watermark image so as to generate a containing watermark document

image **(paragraph 45, Suzaki teaches obtaining a wartermark document image by**

**combining the watermark document and the document.)** Suzaki also discloses the

use of codes to form the watermark **(paragraph 56, Suzaki teaches the use of**

**codes.)**

However, Suzaki does not specifically teach the use of PN codes.

Tewfik discloses a PN code generating section for generating PN code **(col. 3 lines 50-54, Tewfik teaches a PN code being generated by the invention.)**; a watermark image generating section for diffusing prescript watermark information by using the PN code **(col. 3 lines 50-60, Tewfik teaches embedding the input data (PN Code) into the host data. Therefore, the PN code is inserted into a document to watermark that document.)**

Suzaki and Tewfik are analogous art because they are from the same field of endeavor of inserting watermarks into data in order to verify the integrity of the data.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Suzaki's teachings with the teachings of Tewfik because this would this would increase the security and data integrity of the generated watermark **(col. 2 lines 38-42, Tewfik teaches the need to hide the watermark to survive data manipulations and PN codes will allow for this.)**

As per claim 3, Suzaki in view of Tewfik disclose the watermark information embedding apparatus according to claim 2, wherein the PN code generating section generates at least one PN code **(Tewfik, col. 3 lines 50-54, teaches generating a PN code.)**, and the watermark image generating section utilizes the at least one PN code to diffuse the prescript watermark information with respect to row unit or column unit **(Tewfik, col. 3 lines 50-60, teaches using the PN code to generate the watermark. Suzaki, Figure 3 and paragraphs 60-61, teaches the PN codes being used to represent the height and width (column and row) of the watermark signal.)**

As per claim 4, Suzaki in view of Tewfik disclose the watermark information embedding apparatus according to claim 2, wherein the PN code generating section generates two-dimensional PN code which is different from or is same with that representing row direction and column direction respectively **(Suzaki, paragraph 56, teaches the generation of N-dimensional codes where N >=2 and Suzaki, paragraphs 60-61, teaches that the two-dimensional codes represent the height and width (column and row) of the watermark image. Tewfik, col. 3 lines 50-60, teaches the use of PN codes to generate watermark images.)**

As per claim 5, Suzaki discloses a watermark information embedding apparatus comprising: a document image generating section for generating a document image **(Figure 1 and paragraphs 42-43, Suzaki teaches a document image formation portion to generate a document image.)**; a code generating section for generating three-dimensional code which is different from or is same with that representing row direction and column direction **(paragraphs 56-60, Suzaki teaches generating N-dimensional codes that represent the height and width (column and row) of the watermark signal.)**; the code generating section generating two-dimensional code which is configured by codes with respect to row direction and column direction according to prescript watermark information **(paragraphs 56-60, Suzaki teaches generating N-dimensional codes that represent the height and width (column and row) of the watermark signal.)**; a watermark image generating section for using the two-dimensional code to diffuse the prescript watermark information so as to generate the watermark image of one page **(paragraphs 56-60, Suzaki teaches the use of N-**

**dimensional codes to generate a watermark image.)**, and a synthesizing section for

overlapping the document image and corresponding watermark image so as to

generate a containing watermark document image **(paragraph 45, Suzaki teaches**

**obtaining a wartermark document image by combining the watermark document**

**and the document.)**

However, Suzaki does not specifically state the use of a multipage document or

watermarking a multipage document.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to insert a watermark into a multipage document. Suzaki, paragraph 56,

teaches the use of N-dimensional (N >= 2) codes being used to insert a watermark into

a single page document. If the two-dimensional codes represent the height and width of

the watermark signal (page) as shown in Suzaki paragraph 60, then it would be obvious

for the third dimension to be the page number and to insert a watermark into that

multipage document.

However, Suzaki also does not specifically state the codes to be used are PN

codes.

Tewfik discloses the use of PN codes **(col. 3 lines 50-60, Tewfik teaches**

**generating the PN codes and embedding the input data (PN Code) into the host**

**data. Therefore, the PN code is inserted into a document to watermark that**

**document.)**

Suzaki and Tewfik are analogous art because they are from the same field of

endeavor of inserting watermarks into data in order to verify the integrity of the data.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Suzaki's teachings with the teachings of Tewfik because this would

this would increase the security and data integrity of the generated watermark **(col. 2**

**lines 38-42, Tewfik teaches the need to hide the watermark to survive data**

**manipulations and PN codes will allow for this.)**

As per claim 6, Suzaki in view of Tewfik discloses the watermark information

embedding apparatus according to claim 2, wherein the multiple dot pattern are

configured in one surface **(paragraphs 44, 56-61, Figure 3, and abstract, Suzaki**

**teaches using dot patterns in a two-dimensional surface.)**, and wherein there is at

least a dot pattern representing special watermark information **(paragraphs 44, 56-61,**

**Figure 3, and abstract, Suzaki teaches using dot patterns to contain special**

**information.)**


As per claim 8, Suzaki discloses a watermark information detecting apparatus for

extracting watermark information **(paragraphs 47-50, Suzaki teaches a watermark**

**information detection device.)**, from a document comprising a watermark detector

**(paragraph 18-19, Suzaki teaches detection of the watermark by use of the dot**

**patterns.)**, the watermark information detector extracting the watermark image from the

document **(paragraph 18-19, Suzaki teaches detection and extraction of the**

**watermark image.)**, Suzaki also discloses determining the area of the watermark signal

**(paragraphs 97-99, Suzaki teaches calculating the watermark area.)**

However, Suzaki also does not specifically state the use of PN codes.

Tewfik discloses the use of PN codes to generate and embed the watermark **(col. 3 lines 50-60, Tewfik teaches generating the PN codes and embedding the input data (PN Code) into the host data. Therefore, the PN code is inserted into a document to watermark that document.)**

Suzaki and Tewfik are analogous art because they are from the same field of endeavor of inserting watermarks into data in order to verify the integrity of the data.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Suzaki's teachings with the teachings of Tewfik because this would this would increase the security and data integrity of the generated watermark **(col. 2 lines 38-42, Tewfik teaches the need to hide the watermark to survive data manipulations and PN codes will allow for this.)**

As per claim 9, Suzaki in view of Tewfik discloses the watermark information detecting apparatus according to claim 8, wherein the watermark detector discriminates whether the watermark information is correctly detected according to correlation peak value of the PN code **(paragraph 102, Suzaki teaches determining if the watermark contains any noise information. Tewfik, col. 3 lines 50-60, teaches the use of PN codes.)**, if the watermark information can't be detected correctly **(paragraph 102, Suzaki teaches a way to detect the watermark information in the presence of noise.)**, the watermark detector performing prescript correction **(paragraph 102, Suzaki teaches a way to detect the watermark information in the presence of noise.)**

As per claim 10, Suzaki in view of Tewfik discloses the watermark information detecting apparatus according to claim 8, wherein the watermark detector calculates correlation values using different PN codes, detects correlation peak value of each PN code, estimates row address and column address according to the correlation peak value **(Suzaki, paragraphs 19, 103-104, teaches the use of a filter to detect the watermark information on the watermarked document. Figures 17 and 18 also teach the recovering of the codes (row and column) that were used to embed the watermark. Tewfik, col. 3 lines 50-60, teaches the use of PN codes to be able to embed data in a watermark that can also be retrieved even if the data has been manipulated.)**

As per claim 11, Suzaki in view of Tewfik discloses the watermark information detecting apparatus according to claim 8, wherein the watermark detector calculates correlation of two-dimensional PN code, which includes different kinds of PN codes in row direction and column direction respectively **(paragraphs 19 and 56-60 and 103, Suzaki discloses the use of two-dimensional filters to determine the codes. Suzaki also teaches that these codes can be any dimension greater than or equal to 2, and that the two-dimensional version represents the height and width (column and row) of the watermark.)**, so as to estimate the area of the watermark information **(paragraphs 97-99, Suzaki teaches calculating the watermark area.)**

As per claim 12, Suzaki in view of Tewfik discloses the watermark information detecting apparatus according to claim 8, and wherein the watermark detector calculates correlation of three-dimensional PN code, which includes different kinds of

PN codes with respect to row direction and column direction **(paragraphs 19 and 56-60**

**and 103, Suzaki discloses the use of two-dimensional filters to determine the**

**codes. Suzaki also teaches that these codes can be any dimension greater than**

**or equal to 2, and that the two-dimensional version represents the height and**

**width (column and row) of the watermark.)**, so as to estimate the area of the

watermark information **(paragraphs 97-99, Suzaki teaches calculating the**

**watermark area.)**

However, Suzaki in view of Tewfik does not specifically state the use of a

multipage document or watermarking a multipage document.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to insert a watermark into a multipage document. Suzaki, paragraph 56,

teaches the use of N-dimensional (N >= 2) codes being used to insert a watermark into

a single page document. If the two-dimensional codes represent the height and width of

the watermark signal (page) as shown in Suzaki paragraph 60, then it would be obvious

for the third dimension to be the page number and to insert a watermark into that

multipage document.

As per claim 13, Suzaki in view of Tewfik disclose the watermark information

detecting apparatus according to claim 8, wherein the multiple dot pattern are

configured in one surface **(paragraphs 44, 56-61, Figure 3, and abstract, Suzaki**

**teaches using dot patterns in a two-dimensional surface.)**, and wherein there is at

least a dot pattern representing special watermark information **(paragraphs 44, 56-61,**

**Figure 3, and abstract, Suzaki teaches using dot patterns to contain special**

**information.)**

As per claim 15, Suzaki discloses a method of embedding watermark

information, comprising: generating a watermark image through utilizing a watermark

information embedding apparatus to diffuse prescript watermark information by using

codes **(paragraphs 56-60, Suzaki teaches using codes to generate a watermark.)**;

synthesizing the watermark image and prescript document image so as to generate the

synthesized image **(paragraphs 45-46, Suzaki teaches generating the document**

**and printing the document.)**; and outputting the synthesized image **(paragraphs 45-**

**46, Suzaki teaches generating the document and printing the document.)**

However, Suzaki also does not specifically state that the codes are PN codes.

Tewfik discloses the use of PN codes to generate and embed the watermark

**(col. 3 lines 50-60, Tewfik teaches generating the PN codes and embedding the**

**input data (PN Code) into the host data. Therefore, the PN code is inserted into a**

**document to watermark that document.)**

Suzaki and Tewfik are analogous art because they are from the same field of

endeavor of inserting watermarks into data in order to verify the integrity of the data.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Suzaki's teachings with the teachings of Tewfik because this would

this would increase the security and data integrity of the generated watermark **(col. 2**

**lines 38-42, Tewfik teaches the need to hide the watermark to survive data manipulations and PN codes will allow for this.)**

As per claim 16, Suzaki in view of Tewfik disclose the method of embedding watermark information according to claim 15, wherein the multiple dot pattern are configured in one surface **(paragraphs 44, 56-61, Figure 3, and abstract, Suzaki teaches using dot patterns in a two-dimensional surface.)**, and wherein there is at least a dot pattern representing special watermark information **(paragraphs 44, 56-61, Figure 3, and abstract, Suzaki teaches using dot patterns to contain special information.)**

As per claim 18, Suzaki discloses a method of detecting watermark information for utilizing a watermark information detecting apparatus to extract watermark information **(paragraph 18-19, Suzaki teaches the use of a detecting apparatus to detect and extract watermark information.)**, and estimating the area of the watermark information according to previous steps **(paragraphs 97-99, Suzaki teaches calculating the watermark area.)** Suzaki also teaches the use of codes in the watermark **(paragraphs 56-60, Suzaki teaches the use of the codes.)** and also performing a correlation to detect and extract the watermark **(paragraphs 18-19, Suzaki teaches extracting the data by a correlation.)**

However, Suzaki also does not specifically state that these codes are PN codes.

Tewfik discloses the use of PN codes to generate and embed the watermark **(col. 3 lines 50-60, Tewfik teaches generating the PN codes and embedding the**

**input data (PN Code) into the host data. Therefore, the PN code is inserted into a**

**document to watermark that document.)**

Suzaki and Tewfik are analogous art because they are from the same field of

endeavor of inserting watermarks into data in order to verify the integrity of the data.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Suzaki's teachings with the teachings of Tewfik because this would

this would increase the security and data integrity of the generated watermark **(col. 2**

**lines 38-42, Tewfik teaches the need to hide the watermark to survive data**

**manipulations and PN codes will allow for this.)**

As per claim 19, Suzaki in view of Tewfik disclose the method of detecting

watermark information according to claim 18, wherein the multiple dot pattern are

configured in one surface **(paragraphs 44, 56-61, Figure 3, and abstract, Suzaki**

**teaches using dot patterns in a two-dimensional surface.)**, and wherein there is at

least a dot pattern representing special watermark information **(paragraphs 44, 56-61,**

**Figure 3, and abstract, Suzaki teaches using dot patterns to contain special**

**information.)**

As per claim 20, Suzaki discloses a method for generating a containing

watermark document comprising: generating a watermark image by using codes to

diffuse prescript watermark information **(paragraphs 56-60, Suzaki teaches using**

**codes to generate the watermark information.)**; and synthesizing the watermark

image and prescript document **(paragraph 45, Suzaki teaches obtaining a**

**wartermark document image by combining the watermark document and the**

**document.)**

However, Suzaki also does not specifically state that these codes are PN codes.

Tewfik discloses the use of PN codes to generate and embed the watermark

**(col. 3 lines 50-60, Tewfik teaches generating the PN codes and embedding the**

**input data (PN Code) into the host data. Therefore, the PN code is inserted into a**

**document to watermark that document.)**

Suzaki and Tewfik are analogous art because they are from the same field of

endeavor of inserting watermarks into data in order to verify the integrity of the data.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Suzaki's teachings with the teachings of Tewfik because this would

this would increase the security and data integrity of the generated watermark **(col. 2**

**lines 38-42, Tewfik teaches the need to hide the watermark to survive data**

**manipulations and PN codes will allow for this.)**

## *Conclusion*

11.     Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JOHN B. KING whose telephone number is (571)270-

7310.  The examiner can normally be reached on Mon. - Thur.  7:30 AM - 5:00 PM est..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Pham can be reached on (571)272-3689. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JBK/

/Thomas K Pham/
Supervisory Patent Examiner, Art Unit 4148